

**IN THE CLAIMS:**

The following claim listing replaces all prior versions:

1-4. (Canceled)

5. (Previously presented) An isolated nucleic acid comprising a nucleotide sequence encoding a mutated human alpha synuclein protein having a mutation at position 209 wherein a guanine is replaced by an adenine.

6. (Presently amended) An isolated nucleic acid comprising the sequence given in SEQ ID NO. 1.

7-9. (Cancelled)

10. (Previously presented) A vector comprising the isolated nucleic acid of claim 5.

11. (Previously presented) An isolated host cell comprising the vector of claim 10.

12-74. (Cancelled)

75. (Previously presented) A method of detecting subjects at increased risk for Parkinson's Disease, comprising:

obtaining a sample comprising nucleic acids from the subjects; and  
detecting in the nucleic acids the presence of the nucleic acid of claim 5,  
thereby identifying subjects at increased risk for Parkinson's Disease.

76. (Previously presented) A method of detecting subjects at increased risk for Parkinson's Disease, comprising:

obtaining a sample comprising nucleic acids from the subjects; and

detecting in the nucleic acids the presence of the nucleic acid of claim 6,  
thereby identifying subjects at increased risk for Parkinson's Disease.